

**BEFORE THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA**

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COMMISSION

**DIRECT TESTIMONY
OF
DONALD A. MURRY, Ph.D.
ON BEHALF OF
SOUTH CAROLINA ELECTRIC & GAS COMPANY
DOCKET NO. 2007-229-E**

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1 **DIRECT TESTIMONY**

2 **OF**

3 **DONALD A. MURRY, Ph.D.**

4 **ON BEHALF OF**

5 **SOUTH CAROLINA ELECTRIC & GAS COMPANY**

6
7 **I. INTRODUCTION**

8 **Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS**
9 **ADDRESS.**

10 A. My name is Donald A. Murry. My business address is 5555 North
11 Grand Blvd., Oklahoma City, Oklahoma 73112.

12 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT POSITION?**

13 A. I am a Vice President and Economist with C. H. Guernsey &
14 Company, working primarily out of the offices in Oklahoma City and
15 Tallahassee. I am also a Professor Emeritus of Economics on the faculty of
16 the University of Oklahoma.

17 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

18 A. I have a B.S. in Business Administration and a M.A. and a Ph.D. in
19 Economics from the University of Missouri - Columbia.

20 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND.**

21 A. From 1964 to 1974, I was an Assistant and Associate Professor and

1 Director of Research on the faculty of the University of Missouri - St.
2 Louis. For the period 1974-98, I was a Professor of Economics at the
3 University of Oklahoma, and since 1998, I have been Professor Emeritus at
4 the University of Oklahoma. Until 1978, I also served as Director of the
5 Center for Economic and Management Research. In each of these positions,
6 I directed and performed academic and applied research projects related to
7 energy and regulatory policy. During this time, I also served on several
8 state and national committees associated with energy policy and regulatory
9 matters and published and presented a number of papers in the field of
10 regulatory economics in the energy industries.

11 **Q. PLEASE DESCRIBE YOUR REGULATORY EXPERIENCE.**

12 A. Since 1964, I have consulted for a number of private and public
13 utilities, state and federal agencies, and other industrial clients regarding
14 energy and regulatory matters in the United States, Canada and other
15 countries. In 1971-72, I served as Chief of the Economic Studies Division,
16 Office of Economics of the Federal Power Commission. From 1978 to early
17 1981, I was Vice President and Corporate Economist for Stone & Webster
18 Management Consultants, Inc. I am now a Vice President with C. H.
19 Guernsey & Company. In all of these positions I have directed and
20 performed a wide variety of applied research projects and conducted other
21 projects related to regulatory matters. Recently, I have assisted both private

1 and public companies and government officials in areas related to the
2 regulatory, financial and competitive issues associated with the
3 restructuring of the utility industry in the United States and other countries.

4 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE OR BEEN AN**
5 **EXPERT WITNESS IN PROCEEDINGS BEFORE REGULATORY**
6 **BODIES?**

7 A. Yes, I have appeared before the U.S. District Court-Western District
8 of Louisiana, U.S. District Court-Western District of Oklahoma, District
9 Court-Fourth Judicial District of Texas, U.S. Senate Select Committee on
10 Small Business, Federal Power Commission, Federal Energy Regulatory
11 Commission, Interstate Commerce Commission, Alabama Public Service
12 Commission, Alaska Public Utilities Commission, Arkansas Public Service
13 Commission, Colorado Public Utilities Commission, Florida Public Service
14 Commission, Georgia Public Service Commission, Illinois Commerce
15 Commission, Iowa Commerce Commission, Kansas Corporation
16 Commission, Kentucky Public Service Commission, Louisiana Public
17 Service Commission, Maryland Public Service Commission, Mississippi
18 Public Service Commission, Missouri Public Service Commission,
19 Nebraska Public Service Commission, New Mexico Public Service
20 Commission, New York Public Service Commission, Power Authority of
21 the State of New York, Nevada Public Service Commission, North Carolina
22 Utilities Commission, Oklahoma Corporation Commission, South Carolina
23 Public Service Commission, Tennessee Public Service Commission,

1 Tennessee Regulatory Authority, the Public Utility Commission of Texas,
2 the Railroad Commission of Texas, the State Corporation Commission of
3 Virginia and the Public Service Commission of Wyoming.

4 **Q. WHAT IS THE NATURE OF YOUR TESTIMONY IN THIS CASE?**

5 A. South Carolina Electric & Gas Company, also referred to as
6 "SCE&G" or the "Company," has retained me to analyze its current cost of
7 capital and to recommend a rate of return that is appropriate in this
8 proceeding. SCANA Corporation, a publicly traded company, is the parent
9 company of SCE&G.

10
11 **II. SUMMARY OF FINDINGS AND RECOMMENDATIONS**

12 **Q. PLEASE SUMMARIZE YOUR FINDINGS AND**
13 **RECOMMENDATIONS IN THIS MATTER.**

14 A. I studied the current economic conditions and the financial markets
15 and determined that continuing increases in inflation and interest rates are
16 important considerations for setting an allowed return for SCE&G for the
17 future. I also reviewed the current capital structure of SCE&G as part of my
18 analysis and considered its appropriateness for developing the total
19 weighted cost of capital in this proceeding. I concluded the appropriate
20 capital structure for SCE&G includes 53.32 percent common stock, 2.42
21 percent preferred stock and 44.26 percent long-term debt. I determined the

1 relevant cost of long-term debt was 6.23 percent and preferred stock was
2 6.41 percent for SCE&G.

3 I reviewed financial information for SCANA and a group of electric
4 utilities comparable to SCE&G in many key respects. I observed that
5 SCANA was similar in many risk characteristics to these mid-size electric
6 utilities, but, as a holding company whose holdings included SCE&G, it
7 was riskier than the comparable companies due to SCE&G's announced
8 plans to explore adding new nuclear generation.

9 Next, I estimated the cost of common equity appropriate for this
10 proceeding using the market-based measures for common stock of
11 Discounted Cash Flow, or "DCF," and the Capital Asset Pricing Model, or
12 "CAPM," for the comparable group of electric utilities as proxies for
13 SCE&G. For the comparable companies, the most relevant DCF result was
14 11.91 percent and the most relevant CAPM results were 12.19 percent and
15 13.07 percent for the comparable companies.

16 To reach a recommended allowed return, I evaluated the results of
17 my analysis in the context of the current and forecasted economic
18 environment, and I am recommending an allowed return in the range of
19 11.75 percent to 12.00 percent. My recommended total cost of capital
20 range is 9.18 percent to 9.31 percent.

1 Finally, to verify that my recommended allowed return was
2 sufficient to attract and maintain capital, I compared the After-Tax Interest
3 Coverage at the low end of my recommended return level to the After-Tax
4 Interest Coverage of the comparable electric utilities. As this fell at the
5 upper end of the range of coverages of the comparable group, my
6 recommended range of returns is sufficient to attract and maintain capital in
7 current markets.

8 9 **III. METHODOLOGY**

10 **Q. PLEASE EXPLAIN THE STEPS THAT YOU FOLLOWED AS YOU**
11 **DEVELOPED YOUR ANALYSIS AND RECOMMENDATION.**

12 A. As a background to my analysis of the cost of capital of SCE&G, I
13 reviewed the current economic environment. Notably, the current economic
14 statistics reveal increasing inflationary pressures and rising interest rates,
15 and analysts' forecasts anticipate continuing increases. I also reviewed the
16 published financial characteristics of SCANA, which included studying
17 measures of financial and business risks and recent returns.

18 I identified the appropriate capital structure for SCE&G in this
19 proceeding. I also identified the costs of long-term debt and preferred stock.
20 Then I measured the cost of common equity for SCE&G.

1 To measure the cost of common equity for SCE&G, I used the
2 commonly accepted DCF method and CAPM. I applied these market-based
3 measures to SCANA, using SCANA market data, and I applied this
4 analysis for comparison to the group of electric utilities with similar
5 financial characteristics to SCE&G. I reviewed the SCANA market-based
6 cost of capital, which recognizes that SCANA raises capital for SCE&G.
7 This methodology produces a reasonable estimate of the cost of common
8 equity for SCE&G. Finally, I tested these levels of common stock returns to
9 verify that they would produce sufficient funds to cover the fixed interest
10 debt costs and to attract capital.

11 **Q. WHEN SELECTING A GROUP OF COMPARABLE COMPANIES**
12 **FOR ANALYSIS, WHAT CRITERIA DID YOU USE?**

13 A. First, I identified the electric utility companies reported by *Value*
14 *Line* to select a group of comparable companies. *Value Line* provides a
15 common data source for analysis of publicly traded electric utility
16 companies. *Value Line* does not underwrite securities and does not have a
17 conflict of interest that some critics associate with certain companies that
18 provide financial information. It is also readily available to a broad
19 community of investors. I then excluded all companies actively involved in
20 a merger from the group of comparable companies. A utility involved in a
21 merger is an unreliable proxy for measuring the cost of capital of a

1 regulated utility such as SCE&G. Next, I selected firms that have not
2 reduced or eliminated their dividend in the past five years. Companies that
3 have failed to maintain dividends are likely to be under some financial
4 stress, and they would not provide a good standard by which to set an
5 allowed return to maintain a healthy utility. Fourth, I removed those
6 utilities for which *Value Line* is forecasting zero or negative earnings
7 growth. Again, this criterion will help assure that my analysis focuses on
8 healthy utilities. Fifth, I narrowed the group by focusing on companies that
9 have market capitalization greater than \$2 billion and less than \$8 billion.
10 Size affects the market cost of capital, and this criterion selects companies
11 of similar size to SCE&G. Last, I omitted those companies that earn less
12 than 60 percent of their operating income from electric utility operations.

13 **Q. AFTER APPLYING THESE CRITERIA TO UTILITIES TRADED**
14 **IN THE MARKET, WHICH UTILITIES DID YOU SELECT AS**
15 **COMPARABLE TO SCE&G FOR YOUR ANALYSIS?**

16 A. The selected utilities are DPL, Northeast Utilities, Nstar, OGE
17 Energy, Pepco Holdings, Pinnacle West and Wisconsin Energy.

18 **Q. ARE YOU SPONSORING ANY EXHIBITS WITH YOUR**
19 **TESTIMONY?**

20 A. Yes. I am sponsoring Exhibit No. ____ (DAM-1) through Exhibit

1 No. ____ (DAM-26), all of which were prepared under my direct
2 supervision.

3
4 **IV. ECONOMIC ENVIRONMENT**

5 **Q. CAN YOU SUMMARIZE THE CURRENT ECONOMIC**
6 **ENVIRONMENT?**

7 A. Growth in real GDP slowed to a revised 0.6 percent annual rate in
8 the first quarter of 2007 according to a report issued by the Commerce
9 Department on May 31st; however, in general the economic statistics reflect
10 a healthy economy. *Blue Chip Financial Forecasts* (“*Blue Chip*”), a highly
11 regarded publication of consensus forecasts, predicts growth in real Gross
12 Domestic Product (“GDP”) will increase to 2.3 percent in the second
13 quarter of 2007 and improve to a 3.0 percent rate in the first through third
14 quarters of 2008 as shown in Exhibit No. ____ (DAM-1). The economy
15 added 157,000 jobs in May, and on June 1st, the Labor Department reported
16 that the unemployment rate remained at 4.5 percent. According to that
17 report, many businesses are having difficulty recruiting professional and
18 skilled workers. Business activity is expanding; for example, the National
19 Association of Purchasing Management-Chicago business barometer
20 increased to 61.7 in May from 52.9 in April. A measure greater than 50
21 signals expansion. Non-defense capital goods shipments, excluding aircraft,

1 grew in February, March, and April, and forecasters predict capital
2 expenditures will grow in the five percent to six percent range in the second
3 quarter.

4 The housing market remains soft, however the Commerce
5 Department reported that new home sales rose 16 percent in April. Analysts
6 attributed the increase in sales to lower prices. Most significantly, however,
7 analysts expect the growing economy to put upward pressure on both
8 inflation and interest rates.

9 **Q. WHAT ARE SOME OF THE CONSEQUENCES OF THIS**
10 **ECONOMIC GROWTH?**

11 A. Increased manufacturing activity, spurred by economic growth
12 abroad and increasing exports, should keep labor markets tight. Many
13 forecasters predict low unemployment will offset negative consumer
14 confidence associated with the housing slump and the decline in home
15 prices. The unemployment rate of 4.5 percent is close to the five-year low
16 of 4.4 percent reached in March of this year. Treasury yields have increased
17 to the highest rate in three years. The yield curve of Treasury debt has
18 recently returned to its normal shape; that is, the yields on long-term United
19 States Treasury bonds now exceed the yields on short-term Treasury bills.

20 The consensus is that overall economic activity will improve into
21 2008 as slow residential investment picks up, capital spending improves

1 and relatively high core inflation keeps the Federal Open Market
2 Committee ("FOMC") from lowering rates throughout 2007. As reported
3 by *Bloomberg* on June 4th, options on Federal Fund futures at the Chicago
4 Board of Trade indicate an approximate 40 percent chance the central bank
5 will lift its target rate for overnight loans between banks to 5.5 percent from
6 the current 5.25 percent.

7 **Q. YOU MENTIONED THAT THE INFLATION RATE IS**
8 **IMPORTANT TO INVESTORS. WHAT ARE CURRENT**
9 **INFLATION CONSIDERATIONS?**

10 A. Economists have consistently underestimated inflationary pressures
11 over the last two years. Sharp increases in food and energy prices so far in
12 2007 have led to high near-term increases in inflation forecasts. Analysts
13 expect the Consumer Price Index ("CPI") to increase at a 4.2 percent
14 annualized rate in the second quarter of 2007 following a 3.8 percent
15 annualized rate of growth in the first quarter. The core CPI, which excludes
16 food and energy, slowed somewhat in the second quarter from the 2.3
17 percent rate experienced in the first quarter. However, the consensus is that
18 core inflation will increase at a 2.3 percent rate on a December-over-
19 December basis for 2007 and 2008. This is near the top of the FOMC's
20 presumed informal target range of 1.5 percent to 2.5 percent for the core
21 CPI, which implies that the Federal Reserve could move to tighten credit.

1 In confirmation of the relative importance of these developments, the
2 minutes from the May 9th FOMC meeting state,

3 In these circumstances, the Committee's predominate policy concern
4 remains the risk that inflation will fail to moderate as expected.
5 Future policy adjustments will depend on the evolution of the
6 outlook for both inflation and economic growth, as implied by
7 incoming information.
8

9 **Q. HOW HAVE THE ECONOMIC ACTIVITY AND INFLATION**
10 **EXPECTATIONS AFFECTED INTEREST RATES?**

11 A. The FOMC raised interest rates 17 times between June 2004 and
12 June 2006. Although the FOMC recently has foregone raising short-term
13 rates further, it has indicated that it will remain vigilant regarding inflation
14 concerns. For example, Richmond Federal Reserve Bank President Jeff
15 Lacker recently said, "inflation expectations seem to have risen as inflation
16 has risen, and seem to be lodged around 2 percent, (this) gives me a lot of
17 concern."

18 **Q. YOU DISCUSSED SOME FACTORS CURRENTLY AFFECTING**
19 **INTEREST RATES. WHAT ARE THE RECENT AND CURRENT**
20 **LEVELS OF BOND RATES?**

21 A. Currently, the 10-year Treasury and Baa-corporate bond rate are
22 about 5.22 percent and 6.38 percent, respectively. As shown on Exhibit No.
23 ____ (DAM-2), according to the Federal Reserve, the yields on 10-year
24 Treasury notes bottomed in 2003 and have been increasing ever since.

1 **Q. WHAT IS THE FORECASTED LEVEL OF BOND INTEREST**
2 **RATES?**

3 A. Generally, analysts expect long-term bond rates to continue rising.
4 *Blue Chip* forecasts the Baa-corporate rate will continue to increase
5 reaching 6.8 percent in 2008 as illustrated in Exhibit No. ____ (DAM-3),
6 pages 1 and 2. The current yield on 30-Year Treasury bonds now exceeds
7 the *Blue Chip* forecasts. *Value Line* provides a longer-term forecast for the
8 2010-12 period and also shows interest rate increases out to that period. I
9 have shown this continued forecasted growth in interest rates in Exhibit No.
10 ____ (DAM-4), pages 1 and 2.

11 **Q. HOW IMPORTANT IS THIS ECONOMIC ACTIVITY TO YOUR**
12 **RECOMMENDATION IN THIS PROCEEDING?**

13 A. The rates set in this proceeding are likely to be in effect during a
14 period of rising inflation and interest rates, and this is an important
15 background for my analysis. Rising inflation and interest rates erode
16 earnings and adversely affect the cost of a utility's debt and equity. Utilities
17 such as SCE&G are particularly sensitive to the effects of inflation and
18 increasing interest rates because they are capital intensive with large
19 interest payment obligations. The rising costs erode utility margins. That is,
20 inflation and rising interest rates increase the risk that common
21 stockholders will not achieve their anticipated returns on investment.

1 **V. ALLOWED RETURN OBJECTIVE**

2 **Q. WHAT IS THE PRINCIPAL OBJECTIVE IN YOUR TESTIMONY**
3 **REGARDING SETTING THE ALLOWED RETURN IN THIS**
4 **PROCEEDING?**

5 A. The principal objective was to determine an allowed return for
6 SCE&G in this proceeding that is consistent with the concept of a fair rate
7 of return on invested capital. The analysis performed accomplished this
8 objective.

9 **Q. WHAT DO YOU MEAN BY THE TERM “FAIR RATE OF**
10 **RETURN?”**

11 A. By the term “fair rate of return,” I am referring to a return that meets
12 the standards set by the United States Supreme Court decision in *Bluefield*
13 *Water Works and Improvement Company vs. Public Service Commission*,
14 *262 U.S. 679 (1923) (“Bluefield”)*, as further modified in *Federal Power*
15 *Commission vs. Hope Natural Gas Company*, *320 U.S. 591 (1944)*
16 *(“Hope”)*. As an economist, I believe that a rate of return is fair if it
17 provides earnings to investors similar to returns on alternative investments
18 in companies of equivalent risk. Such a return will be sufficient to enable
19 SCE&G to compensate investors for assumed risk, attract capital, operate
20 successfully, and maintain its financial integrity. This standard implies that
21 utilities typically do not face the same market influences as more

1 competitive markets, and a single supplier is likely to exist in a market
2 because of economies of scale in providing retail service. This is the
3 common economic rationale for regulation.
4

5 VI. CAPITAL STRUCTURE

6 **Q. WHAT IS THE APPROPRIATE CAPITAL STRUCTURE OF**
7 **SCE&G IN THIS PROCEEDING?**

8 A. I determined that the appropriate capital structure for SCE&G in this
9 proceeding is the capital structure as of March 31, 2007 with a total capital
10 of \$4,736,784,886. This capital structure includes long-term debt of
11 \$2,096,488,400 or 44.26 percent of total capital, preferred stock of
12 \$114,558,800 or 2.42 percent and common equity of \$2,525,737,686 or
13 53.32 percent. This capital structure includes a planned long-term issuance
14 scheduled in 2008. I have illustrated this capital structure in Exhibit No.
15 ____ (DAM-5).

16 **Q. HOW DOES THIS CAPITAL STRUCTURE OF SCE&G COMPARE**
17 **TO THE CAPITAL STRUCTURE OF OTHER ELECTRIC**
18 **UTILITIES?**

19 A. SCE&G's common equity ratio is at the upper end of similar ratios
20 for the comparable electric utilities that I studied. Nevertheless, SCE&G's
21 common equity ratio included in its application for increased rates is within
22 the bounds of reasonableness for an electric utility in today's market.
23

1 **VII. COST OF LONG-TERM DEBT AND PREFERRED STOCK**

2 **Q. WHAT IS THE APPROPRIATE COST OF LONG-TERM DEBT**
3 **FOR USE IN THIS PROCEEDING?**

4 A. As shown in Exhibit No. ____ (DAM-6), SCE&G's embedded cost
5 of long-term debt is 6.23 percent.

6 **Q. WHAT IS THE APPROPRIATE COST OF PREFERRED STOCK IN**
7 **THIS PROCEEDING?**

8 A. SCE&G's cost of preferred stock is 6.41 percent. I have shown the
9 calculation of the embedded cost of preferred stock in Exhibit No. ____
10 (DAM-7).

11
12 **VIII. FINANCIAL RISK**

13 **Q. YOU USED THE TERM "FINANCIAL RISK." WHAT DID YOU**
14 **MEAN BY THAT TERM?**

15 A. Because the payment of interest on debt and the dividends on
16 preferred stock receive priority over returns to common stock, common
17 stock investors incur the risk that funds will not be sufficient to meet their
18 investment expectations. Because of the prior claims of debt and preferred
19 stock instruments, investors may not realize their anticipated returns in
20 dividends and capital appreciation, and this is a form of financial risk.

1 **Q. DID YOU ASSESS SCE&G'S FINANCIAL RISK?**

2 A. Yes, as I noted previously, the common stock equity ratio of
3 SCE&G is slightly higher than the similar ratio for the comparable
4 companies. Consequently, the financial risk of SCE&G is similar to or
5 slightly less than that of the average of the comparable electric utilities.
6

7 **IX. BUSINESS RISK**

8 **Q. YOU ALSO USED THE TERM "BUSINESS RISK." WHAT DID**
9 **YOU MEAN BY THAT TERM?**

10 A. As I have used the term in the context of my analysis, "business
11 risk" is the exposure to investors' anticipated returns because of the
12 uncertainties of a company's day-to-day business activities. Business risks
13 to electric utilities include such factors as the risk of recovering fuel cost
14 increases, storm damage expenses and increased operating and maintenance
15 expenses among other influences. I reviewed measures of business risk for
16 the comparable companies. Financial publications address the specific risks
17 of SCANA, the parent company of SCE&G, so I reviewed the financial
18 information describing SCANA's financial circumstances.

1 **Q. DOES SCE&G HAVE ANY SPECIAL RISKS TO CONSIDER?**

2 A. Yes. SCE&G plans to invest in a new nuclear unit in the next few
3 years. In today's financial market, nuclear power carries special risk.
4 Because no investor owned utility in the United States has built a new
5 nuclear unit in decades, new technology is still in the development stage.
6 Also, nuclear units entail sizable capital investment. While current public
7 policy considerations are supportive of nuclear power, public policy is
8 never static and potential adverse changes in this policy are a risk to
9 investors. Moreover, although nuclear units have been in operation in the
10 United States and other countries for many years, investors have
11 reservations about the associated risks including the recovery of the
12 investment and operating costs over the life of the plants. This is an
13 important form of regulatory risk.

14 **Q. YOU STATED THAT YOU REVIEWED INFORMATION**
15 **DESCRIBING SCANA'S FINANCIAL CIRCUMSTANCES. WHAT**
16 **MEASURES OF BUSINESS RISK OF SCANA DID YOU REVIEW?**

17 A. Because they are readily available to investors, I reviewed bond
18 ratings and the *Value Line* rankings of "Safety" and "Timeliness." Business
19 risk affects all of these measures although financial risk and other factors
20 affect them as well. *Value Line* defines its "Safety" ranking as a measure of
21 potential risk associated with individual common stocks and "Timeliness"

1 as a measure of a stock's probable performance in the forthcoming year
2 relative to the overall market. As I illustrate in Exhibit No. ____ (DAM-8),
3 *Value Line*, ranks SCANA a "2" (with "1" being the highest) for Safety.
4 This ranking is similar to the rankings of the comparable electric utilities.
5 *Value Line* ranks SCANA a "5" for Timeliness, which is the lowest
6 category. This means that *Value Line* believes that the market will
7 outperform SCANA's common stock over the next year.

8 **Q. YOU ALSO SAID THAT YOU REVIEWED THE BOND AND**
9 **CREDIT RATINGS OF SCANA AND THE COMPARABLE**
10 **ELECTRIC UTILITIES. WHAT DID THIS COMPARISON SHOW?**

11 A. As Exhibit No. ____ (DAM-9) shows, SCANA presently has a
12 *Value Line* "Financial Strength" rating of A-, a Standard & Poor's credit
13 rating of A and a S&P "Business Position" of 4. Each is slightly better than
14 the average of the comparable electric utilities.

15
16 **X. FINANCIAL STATISTICS**

17 **Q. YOU STATED THAT YOU REVIEWED SOME FINANCIAL**
18 **STATISTICS OF THE COMPARABLE COMPANIES AND SCANA.**
19 **WHAT DID YOUR REVIEW OF THESE STATISTICS REVEAL?**

20 A. In general, these financial statistics confirmed that SCANA is very
21 similar in many respects to the comparable electric utilities. For example,

1 as I illustrated in Exhibit No. ____ (DAM-10), *Value Line* predicts
2 currently that SCANA will experience a return on common equity in 2007
3 of about 11.0 percent, although SCE&G itself only earned 8.27 percent on
4 common equity during the test year. While SCANA's projected return is
5 less than the comparable company average, an abnormally high estimated
6 return for DPL influences the comparable company average. As I show in
7 Exhibit No. ____ (DAM-11), the dividend growth rate of SCANA is
8 similar to that of the comparable companies. Similarly, SCANA has
9 maintained a dividend payout ratio similar to the comparable companies as
10 illustrated in Exhibit No. ____ (DAM-12). With these similar financial
11 statistics, not surprisingly, as Exhibit No. ____ (DAM-13) shows,
12 SCANA's market valuation is similar to the comparable electric utilities, as
13 reflected in the market price-earnings ratios.

14 **Q. DID YOU COMPARE SCE&G'S RETURN ON COMMON EQUITY**
15 **TO ANY BROADER GROUP OF ELECTRIC UTILITIES?**

16 A. Yes. I reviewed the composite return on common equity as reported
17 by *Value Line*. In its June 29 report, *Value Line* reported an estimated
18 composite return on common equity for 2007 for the electric utility industry
19 of 14.2 percent. This is an increase in the composite over 2006, which was
20 12.4 percent.

XI. COST OF COMMON STOCK EQUITY

Q. YOU STATED PREVIOUSLY THAT YOU CALCULATED THE COST OF COMMON EQUITY FOR SCE&G. WHAT METHODS DID YOU USE?

A. I employed two generally accepted market-based methods for estimating the cost of common equity in regulatory proceedings. These are the Discounted Cash Flow analysis, which is probably the most commonly referenced method in regulatory proceedings, and the Capital Asset Pricing Model. I applied each of these methods to estimate the cost of common equity of SCANA and each of the comparable electric utilities, and from the results yielded by this analysis, then estimated the cost of capital for SCE&G which is not publicly traded.

Q. WHEN YOU INTERPRETED THE DCF AND CAPM RESULTS, WHAT DID YOU DO TO PUT THEM INTO AN APPROPRIATE CONTEXT?

A. When interpreting the DCF and CAPM results, I took into account the underlying assumptions of these two methods. I also considered their analytical strengths and weaknesses, especially when used to assist in the development of the cost of capital in a ratemaking proceeding.

1 **Q. HOW DID YOU APPLY THESE METHODS TO REACH A**
2 **RECOMMENDED ALLOWED RETURN IN THIS PROCEEDING?**

3 A. Analysts do not report the financial measures that apply specifically
4 to SCE&G because it is a wholly-owned subsidiary of SCANA.
5 Additionally, I interpreted these results in the context of current market
6 conditions and other factors that I studied. From this analysis I then
7 determined my recommendation for a fair and reasonable allowed return in
8 this case.

9 **Q. HOW DID YOUR STUDY OF CURRENT ECONOMIC**
10 **CONDITIONS INFLUENCE YOUR INTERPRETATION OF YOUR**
11 **DCF FINDINGS?**

12 A. As I noted, the forecasted rising inflation and interest rates will
13 affect the cost of common equity for SCE&G. The general level of interest
14 rates is an indicator of returns available from alternative investments that
15 rational investors consider when making investment decisions.

16
17 **XII. DISCOUNTED CASH FLOW METHOD**

18 **Q. PLEASE DEFINE THE DCF METHODOLOGY FOR MEASURING**
19 **THE COST OF COMMON EQUITY.**

20 A. The following formula expresses the DCF calculation of an
21 investor's required rate of return:

1 K = D/P + g
2

3 Where: K = cost of common equity
4 D = dividend per share
5 P = price per share and
6 g = rate of growth of dividends, or alternatively,
7 common stock earnings.
8

9 In this expression, “K” is the capitalization rate required to convert the
10 stream of future returns into a current value. “D” is the expected level of
11 dividends paid to the common stock holders. “P” is the valuation of the
12 common stock by the investors reflected by recent market prices.
13 Consequently, the ratio “D/P” is the expected dividend yield on an
14 investment in a company’s common stock. The “g” is the growth rate in
15 returns anticipated by the investor.

16 **Q. YOU MENTIONED THE UNDERLYING ASSUMPTIONS OF THE**
17 **COST OF CAPITAL MODELS. WHAT ASSUMPTIONS**
18 **UNDERLYING THE DCF METHOD ARE IMPORTANT WHEN**
19 **ESTIMATING THE COST OF COMMON EQUITY IN PRACTICE?**

20 A. I believe one can identify the following important underlying
21 assumptions associated with the basic annually compounded DCF model:

- 22 1. Investors are risk averse. That is, for a given return, investors
23 will seek the alternative with the lowest amount of risk. In
24 other words, the greater the risk that investors attribute to a
25 given investment, the greater the return they require from that
26 investment.
27
28 2. The discount rate must exceed the growth rate, i.e., K, in the
29 stated expression, must exceed g. The mathematics associated

1 with the derivation of the basic annually compounded DCF
2 model requires this assumption.

- 3
- 4 3. The payout and the price earnings ratios remain constant.
- 5
- 6 4. Expected cash flows consist of dividends and the future sales
7 price of the stock. The sales price in any period will equal the
8 present value of the dividends and the sales price expected
9 after that period including any liquidating dividend.
10 Consequently, the sales price in any period is equal to the
11 present value of all expected future dividends.
- 12
- 13 5. Dividends are paid annually.
- 14
- 15 6. There is no external financing.
- 16

17 As noted in these assumptions, expected cash flows consist of dividends
18 and the future sales price of common equity, but actually, earnings drive
19 both.

20

21 **XIII. STRENGTHS OF THE DCF**

22 **Q. YOU INDICATED THAT YOU NOTED THE STRENGTHS OF THE**
23 **DCF METHOD. WHAT, IN YOUR OPINION, ARE ITS**
24 **STRENGTHS?**

25 A. The DCF is the most common method that one encounters for
26 measuring the cost of common equity in regulatory proceedings. Its
27 familiarity to persons in a regulatory setting is an important strength. A
28 second important feature is that it is theoretically sound. Additionally, as a
29 market-based measure of the cost of capital, its results change as the market

1 environment surrounding a company's securities change. That is, it
2 recognizes investors' expectations, and it uses market price information, as
3 well as a company's dividend and earnings performance, to determine the
4 value that an investor places on anticipated returns. Using these market
5 relationships, an analyst can estimate the opportunity cost of an investor's
6 funds, which is the cost of common equity.

8 **XIV. WEAKNESSES OF THE DCF**

9 **Q. WHAT DO YOU SEE AS IMPORTANT WEAKNESSES OF THE**
10 **DCF METHOD?**

11 A. The DCF has both conceptual and data issues that may lead to
12 misinterpretation of the calculated results. Either can create problems in a
13 ratemaking proceeding.

14 **Q. WHAT DID YOU MEAN WHEN YOU SAID THAT CONCEPTUAL**
15 **PROBLEMS OF THE DCF METHOD COULD LEAD TO**
16 **MISINTERPRETATION OF THE CALCULATED RESULTS?**

17 A. For example, a significant problem with the DCF method, when
18 used in regulation to set an allowed return, is that it estimates the marginal
19 cost of common equity of a company, not the average cost of common
20 equity. That is, the DCF provides an estimate of the minimal return

1 necessary to attract marginal, or incremental, investment in the common
2 equity.

3 **Q. IN YOUR OPINION, IS THE MARGINAL COST NATURE OF THE**
4 **DCF IMPORTANT?**

5 A. Yes. Analysts interpreting the results of the DCF calculations may
6 not recognize their context or what they truly represent. Consequently, the
7 DCF-based calculations may be misleading. For example, the DCF
8 calculated cost of common equity result does not provide any cushion in the
9 estimation of the cost of capital. When using these results as a basis for a
10 recommended allowed return in a regulatory proceeding, the basic
11 calculations may not provide a regulated company a reasonable opportunity
12 to earn its allowed return. In fact, this misunderstanding of the DCF results
13 can virtually assure that a regulated company will not have the opportunity
14 to earn its allowed return.

15 **Q. IN YOUR EXPERIENCE, HAVE REGULATORS OR ANALYSTS**
16 **RECOGNIZED THAT THE DCF RESULTS MAY NOT ALLOW A**
17 **UTILITY SUFFICIENT LATITUDE TO EARN ITS ALLOWED**
18 **RETURN?**

19 A. Yes. Regulators and analysts often adjust results of a DCF estimate
20 for factors not reflected in the marginal cost estimate. A flotation cost
21 adjustment is very common by analysts and regulators, for example. The

1 flotation adjustment specifically recognizes that the market-based DCF
2 estimate of the cost of capital does not necessarily account for the costs of
3 common stock issuance. These issuance costs are inescapable costs that
4 include legal and investment banker fees and costs of publishing a
5 prospectus. As a market measure of the cost of outstanding securities, the
6 DCF cannot incorporate issuance costs for new securities into the measured
7 cost.

8 **Q. DO ANALYSTS RECOGNIZE THIS PROBLEM OF ISSUING**
9 **LARGE BLOCKS OF SECURITIES?**

10 A. Yes. Some analysts specifically apply an adjustment for “market
11 pressure” associated with the sale, or relative increase in the supply of a
12 particular security relative to the current demand for that security.

13 **Q. RECOGNIZING THE MARGINAL COST NATURE OF THE DCF**
14 **AND THE NEED FOR A REGULATED UTILITY TO BE IN THE**
15 **FINANCIAL MARKETS, DO YOU RECOMMEND CALCULATING**
16 **A FLOTATION ADJUSTMENT OR AN ADJUSTMENT FOR**
17 **MARKET PRESSURE?**

18 A. No, I do not. Instead, however, I believe that focusing on the higher
19 DCF results is an appropriate compensation for the nature of the DCF
20 calculation in most instances. I believe that the DCF results fall within the
21 distribution of estimated cost of common equity that investors are likely to

1 perceive. This also provides market measured estimates of the cost of such
2 factors as flotation costs and other market effects. This, in my opinion,
3 directly recognizes the marginal cost nature of the DCF method.

4 **Q. YOU MENTIONED THAT REGULATORS HAVE RECOGNIZED**
5 **THESE LIMITATIONS OF THE DCF METHOD. PLEASE**
6 **EXPLAIN HOW SOME REGULATORS HAVE RECOGNIZED**
7 **THESE LIMITATIONS OF THE DCF.**

8 A. As I noted previously, some regulatory bodies routinely apply
9 flotation adjustments. I have also observed that some regulators have
10 applied those adjustments under certain circumstances. For example, an
11 Indiana commission decision in 1990 specifically addressed the marginal
12 cost nature of the DCF. The commission noted that the assumptions
13 underlying the DCF model rarely, if ever, hold.¹ The commission stated
14 that an "...unadjusted DCF result is almost always well below what any
15 informed financial analyst would regard as defensible and therefore
16 requires an upward adjustment based largely on the expert witness'
17 judgment."²

18 **XV. DATA USED IN DCF ANALYSIS**

19 **Q. YOU MENTIONED PROBLEMS ASSOCIATED WITH THE DATA**
20 **AVAILABLE TO ANALYSTS FOR A DCF ANALYSIS. WHAT**

¹ Phillips, Charles F., Jr. and Robert G. Brown, *Chapter 9: The Rate of Return*, The Regulation of Public Utilities: Theory and Practice, (1993: Public Utility Reports, Arlington, VA) p. 423.

² *In re Indiana Michigan Power Company*, 116 PUR4th 1, 17 (Ind. 1990).

**GROWTH RATE DATA DID YOU PRIMARILY USE IN YOUR
DCF ANALYSIS?**

A. I used forecasted earnings growth estimates as the primary measure in my DCF analysis. Forecasts of common stock earnings capture investors' expectations about future returns, and these are the expectations that affect their decisions to invest. This conclusion is consistent with the findings in the financial academic literature.

**Q. YOU MENTIONED FINDINGS IN THE ACADEMIC
LITERATURE. HAVE ANALYSTS PERFORMED STUDIES
REGARDING WHICH DATA USED IN A DCF ANALYSIS ARE
MOST LIKELY TO CAPTURE INVESTORS' EXPECTATIONS
ABOUT FUTURE RETURNS?**

A. Yes. As early as 1982, academic studies showed that analysts' forecasts were superior to historical, trended growth rates for DCF analyses.

**Q. PLEASE EXPLAIN SOME OF THE STUDIES THAT
DEMONSTRATED THAT INVESTORS LOOK TO ANALYSTS'
FORECASTS WHEN MAKING INVESTMENT DECISIONS.**

A. A number of authors have addressed the merits of analysts' forecasts in a DCF analysis of the cost of capital. For example, a well-known financial textbook by Brigham and Gapenski explains why analysts' growth

1 rate forecasts are the best source for growth measures in a DCF analysis.

2 They state:

3 Analysts' growth rate forecasts are usually for five years into the
4 future, and the rates provided represent the average growth rate over
5 the five-year horizon. Studies have shown that analysts' forecasts
6 represent the best source for growth for DCF cost of capital
7 estimates.³

8 Research reported in the academic literature supports this position. For
9 example, Vander Weide and Carleton found:

10 ...overwhelming evidence that the consensus analysts' forecast of
11 future growth is superior to historically oriented growth measures in
12 predicting the firm's stock price....Our results are consistent with
13 the hypothesis that investors use analysts' forecasts, rather than
14 historically oriented growth calculations, in making stock buy-and-
15 sell decisions.⁴

16 **Q. HAVE ANY OF THE ACADEMIC STUDIES APPLIED**
17 **SPECIFICALLY TO THE DCF GROWTH RATES USED IN**
18 **REGULATORY PROCEEDINGS?**

19 A. Yes. Timme and Eisemann examined the effectiveness of using
20 analysts' forecasts rather than historical growth rates for determining
21 investors' expectations in rate proceedings. They concluded:

22 The results show that all financial analysts' forecasts contain a
23 significant amount of information used by investors in the
24 determination of share prices not found in the historical growth
25 rate....The results provide additional evidence that the historical

³ Brigham, Eugene F., Louis C. Gapenski, and Michael C. Ehrhardt, "Chapter 10: The Cost of Capital," Financial Management Theory and Practice, Ninth Edition (1999: Harcourt Asia, Singapore), p. 381.

⁴ Vander Weide, James H. and Willard T. Carleton, "Investor Growth Expectations: Analysts vs. History," *The Journal of Portfolio Management*, Spring 1988, pp. 78-82.

1 growth rates are poor proxies for investor expectations; hence they
2 should not be used to estimate utilities' cost of capital.⁵
3

4 More broadly, Gordon, Gordon and Gould found:

5 ...the superior performance by KFRG (forecasts of growth by
6 security analysts) should come as no surprise. All four estimates of
7 growth rely upon past data, but in the case of KFRG a larger body of
8 past data is used, filtered through a group of security analysts who
9 adjust for abnormalities that are not considered relevant for future
10 growth.⁶
11

12 **Q. DO YOU FIND THESE STATEMENTS BY THESE AUTHORS**
13 **CREDIBLE?**

14 A. Yes. These results are not surprising because investors, when
15 contemplating an investment in a common stock, very frequently review
16 reputable analysts' forecasts. Such information available to them at the time
17 they contemplate investing will influence their decision to invest.

18 **Q. ARE YOU AWARE OF ANY OTHER EMPIRICAL INFORMATION**
19 **THAT FOCUSES ON THE IMPORTANCE OF COMMON STOCK**
20 **EARNINGS?**

21 A. Yes. In an "event analysis" a colleague and I compared the market
22 reactions of announced dividends and common stock earnings that were
23 likely to be a surprise to the market. We compared the market reactions to
24 dividend announcements with the reactions to common stock earnings

⁵ Timme, Stephen G. and Peter C. Eisemann, "On the Use of Consensus Forecasts of Growth in the Constant Growth Model: The Case of Electric Utilities," *Financial Management*, Winter 1989, pp. 23-35.

⁶ Gordon, David A., Myron J. Gordon, and Lawrence I. Gould, "Choice among methods of estimating share yield," *Journal of Portfolio Management*; Spring 1989, Volume 15, Number 3, pages 50-55.

1 announcements. Specifically, we looked at the price impact of nineteen
2 earnings announcements and eight dividend announcements that exceeded
3 *Value Line's* projected levels during a period from 2001 to 2003.

4 **Q. DID YOU DISTINGUISH THE ORDINARY MARKET**
5 **MOVEMENTS FROM INVESTORS' RESPONSES TO THE**
6 **DIVIDEND AND COMMON STOCK EARNINGS**
7 **ANNOUNCEMENTS?**

8 A. Yes, we used ratios of a utility's common stock price to the Dow
9 Jones Utility Index as a benchmark. The Dow Jones Utility Index provided
10 a measure of the market values of utility common stocks that did not
11 embody the influence of the common stock and earnings per share
12 announcement. This comparison isolated the impact of the surprise
13 dividend and earnings announcements.

14 **Q. WHAT WERE THE RESULTS OF THIS ANALYSIS?**

15 A. The analysis clearly showed significant price impact on a utility's
16 common stock of surprise earnings announcements relative to surprise
17 dividend announcements. In Exhibit No. ____ (DAM-14), I illustrate the
18 percentage increase in the market price relative to the utility index for both
19 the unexpected earnings per share and the dividend announcements. In this
20 chart, the relative impact of the unexpected earnings per share surprise

1 announcement in these cases, when compared to the dividend
2 announcement, is substantially greater.

3 **Q. IN DEVELOPING YOUR DCF ANALYSIS, YOU REVIEWED**
4 **COMMON EQUITY EARNINGS. WHAT DID THIS REVIEW**
5 **SHOW?**

6 A. For a historical perspective, I reviewed the common equity earnings
7 and dividend history of the companies studied. However, as I stated, I
8 focused my analysis principally on forecasted common stock earnings.
9 This review showed SCANA's historical earnings growth has been higher
10 than most of the comparable electric utilities; however, according to *Value*
11 *Line's* forecasts this will reverse in the next several years. I show this
12 comparison in Exhibit No. ____ (DAM-15).

13 **Q. YOU INCLUDED BOOK VALUE GROWTH RATES IN THIS**
14 **SCHEDULE, BUT YOU FOCUSED ON COMMON STOCK**
15 **EARNINGS AND DIVIDEND GROWTH. DO YOU BELIEVE THAT**
16 **BOOK VALUE GROWTH RATES ARE IMPORTANT TO**
17 **INVESTORS?**

18 A. No. The growth in book value of a common stock does not directly
19 influence the market value of a utility's common stock earnings and the
20 dividends paid. The underlying book value of a common stock is important

1 during a company's liquidation; however, this is not as important when
2 valuing a successfully operating electric utility.

3 **Q. WHAT WAS THE SOURCE OR SOURCES OF THE COMMON**
4 **STOCK PRICE DATA THAT YOU USED IN YOUR DCF**
5 **ANALYSIS?**

6 A. From *YAHOO!* Finance, I obtained current prices for a recent
7 two-week period and high and low share prices during the past 52-week
8 period. *YAHOO!* Finance is a widely-used internet portal that provides
9 electronic financial information including daily prices. Of course, I was
10 investigating current market prices because they reflect both current market
11 conditions and investor expectations.

12 **XVI. DCF CALCULATIONS**

13 **Q. WHAT WERE THE RESULTS OF YOUR DCF CALCULATIONS?**

14 A. As I described earlier, the financial literature supports the use of
15 common equity forecasts in DCF calculations. Using these estimates for the
16 electric utilities comparable to SCE&G, the range of DCF returns for the
17 mid-size utilities is 9.51 percent to 15.00 percent using the 52-week price
18 ranges. The average for this group of electric utilities is 11.91 percent. This
19 is the most relevant DCF calculation for setting an allowed return in the
20 current market. Using current prices resulted in an average DCF of 10.89

1 percent. I have illustrated these estimates in Exhibit No. ____ (DAM-16)
2 and Exhibit No. ____ (DAM-17).

3 In comparison, the combined historical and forecasted dividend
4 growth rates and the common stock prices for the past year produced
5 inordinately low estimates for both SCANA and the comparable
6 companies. I show the results of this DCF calculation in Exhibit No. ____
7 (DAM-18). These results average from 8.65 percent to 9.85 percent. This is
8 too close to the current yield of preferred stock of an A- rated utility, which
9 is 7.29 percent, especially given the recent and forecasted increases in
10 interest rates. By using current prices and dividend growth rates in my DCF
11 analysis, the resulting estimates of the cost of common equity vary from a
12 low estimate of 5.30 percent for OGE Energy to a high for PEPCO
13 Holdings of 14.52 percent. Exhibit No. ____ (DAM-19) illustrates this
14 comparison. Using the wide-ranging historical earnings growth rates
15 combined with forecasted growth rates resulted in equally wide-ranging
16 results when I used both 52-week prices and current prices in this analysis.
17 I showed these results in Exhibit No. ____ (DAM-20) and Exhibit No. ____
18 (DAM-21). My DCF calculations, based on both the historical and
19 forecasted earnings per share growth rates, fail to produce meaningful
20 results. These results are examples of the difficulties when using the DCF
21 analysis in some markets, as I discussed previously.

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A. The Capital Asset Pricing Model, or CAPM, is a risk premium method. It measures the risk differential, or premium, between a given investment and the market as a whole. It recognizes an investor's ability to diversify his portfolio by combining securities of various risks, and, through diversification, reducing the investor's total risk. However, some risk is non-diversifiable, e.g., market risk, and investors remain exposed to that risk. The theoretical expression of the CAPM model is:

K	$=$	the required return
R_F	$=$	the risk free rate
R_M	$=$	the required overall market return and
β	$=$	beta, a measure of a given security's risk relative to that of the overall market.

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1 return. In this above expression, the value of market risk is the differential
2 between the market return and the “risk-free” rate. By estimating the risk
3 differential between an individual security and the market as a whole, an
4 analyst can measure the relative cost of that security compared to the
5 market as a whole.

6 **Q. HOW DID YOU USE THE CAPM IN YOUR ANALYSIS?**

7 A. As a risk premium based technique, the CAPM provides a longer-
8 term perspective than that of the more volatile DCF. I used it as a stable
9 benchmark of the reasonable cost of common stock of the studied
10 companies. It takes current debt costs as a basis and estimates the cost of a
11 common stock based on the risk differential between the two. The CAPM
12 links the incremental cost of capital of an individual company with the risk
13 differential between that company and the market as a whole. This is a
14 rather imprecise method, but it is a good tool for assessing the general level
15 of the cost of a security.

16 **Q. WHAT ARE THE BENEFITS THAT YOU SEE IN USING THE**
17 **CAPM IN A REGULATORY PROCEEDING?**

18 A. The CAPM, as a risk premium method, is a relatively stable measure
19 of the cost of capital. The results of the CAPM are not likely to vary much
20 over time. Also, the CAPM results are likely to be similar for companies
21 with similar financial characteristics in the same industry.

1 **Q. WHAT PROBLEMS DO YOU PERCEIVE AS IMPORTANT WHEN**
2 **USING THE CAPM METHOD?**

3 A. The cost of capital calculations for a company are sensitive to the
4 beta used in the CAPM analysis. This beta is a single measure of risk;
5 consequently, the CAPM will not incorporate any risks not included in the
6 measures of market volatility. Also, a number of analysts have shown that
7 the CAPM overestimates the cost of capital of companies with betas greater
8 than one and underestimates the cost of capital of companies with betas less
9 than one. In regulation, this is important, because most utilities have beta
10 estimates less than one. Another analytical concern, when using the CAPM
11 for determining the cost of common equity, is the overwhelming empirical
12 evidence that it underestimates the cost of capital of smaller companies.

13 **Q. PLEASE EXPLAIN MORE FULLY THE CAPM METHODOLOGY**
14 **THAT YOU USED IN YOUR ANALYSIS.**

15 A. I applied two complimentary CAPM approaches to estimate the cost
16 of capital of SCE&G. One of these methods examines the historical risk
17 premium of common stock over high grade corporate bonds. The other
18 integrates the risk premium of common stocks to long-term government
19 bonds in recent markets. This second method requires an adjustment for the
20 bias due to company size. The financial literature has recognized this bias

1 as an empirical problem for a long time, but correcting for this bias is a
2 recent analytical development.

3 **Q. YOU STATED THAT THE FINANCIAL LITERATURE**
4 **RECOGNIZES THAT THE CAPM METHOD MAY REQUIRE AN**
5 **ADJUSTMENT FOR A COMPANY'S SIZE. WHAT IS THE**
6 **NATURE OF THIS RECOGNIZED BIAS?**

7 A. R. W. Banz⁷ and M. R. Reinganum⁸, in the 1980s, pointed out this
8 size bias. Reinganum examined the relationship between the size of the
9 firm and its price-earnings ratio; he found that small firms experienced
10 average returns greater than those of large firms that had equivalent risk as
11 measured by the beta. Of course, the beta is the distinguishing measure of
12 risk in the CAPM. Banz confirmed that beta does not explain all of the
13 returns associated with smaller companies; hence, the CAPM would
14 understate their costs of common equity. In the same time frame, Fama and
15 French confirmed that the Banz analysis consistently rejected the central
16 CAPM hypothesis that beta sufficed to explain the expected return of
17 investors.⁹

⁷ Banz, R.W., "The Relationship Between Return and Market Value of Common Stock," *Journal of Financial Economics*, March 1981, pp. 3-18.

⁸ Reinganum, M. R., "Misspecification of Capital Asset Pricing: Empirical Anomalies Based on Earnings, Yields, and Market Values," *Journal of Financial Economics*, March 1981, pp. 19-46.

⁹ Fama, Eugene F., and Kenneth R. French, "The CAPM is Wanted, Dead or Alive," *The Journal of Finance*, Vol. LI, No. 5, pp. 1947-1958.

1 **Q. WHAT DID YOU MEAN WHEN YOU SAID THAT THE CAPM**
2 **METHOD REQUIRES AN ADJUSTMENT?**

3 A. Although repeated studies showed that the CAPM method possesses
4 a bias that understates the expected returns of small companies, this
5 remained only an empirical observation without a clear remedy. However,
6 Ibbotson Associates, now Morningstar, which is the common source of data
7 for the risk premium used in CAPM analyses, has developed an adjustment
8 for this bias. Morningstar discusses the problem as follows:

9 One of the most remarkable discoveries of modern finance is that of
10 the relationship between firm size and return. The relationship cuts
11 across the entire size spectrum but is most evident among smaller
12 companies, which have higher returns on average than larger ones.
13 Many studies have looked at the effect of firm size on return.¹⁰
14

15 To account for this empirical bias against smaller companies, Morningstar
16 has prescribed quantitative adjustments to the CAPM. It publishes this in
17 the same data source used by many analysts to estimate the risk premium in
18 their CAPM analyses.

19 **Q. DID YOU APPLY THE ADJUSTMENT RECOMMENDED BY**
20 **MORNINGSTAR IN YOUR ANALYSIS?**

21 A. Yes. In my CAPM analysis, I followed the method recommended by
22 Morningstar to compensate for this inherent data bias. Further, I believe

¹⁰ Chapter 7: Firm Size and Return, "Morningstar's Stocks, Bonds, Bills, and Inflation: 2007 Yearbook Valuation Edition," edited by James Harrington, p. 129.

1 that the adjustment must be made to compensate for the bias and to secure
2 credible results from the CAPM analysis.

3 **Q. DOES THE SIZE BIAS ADJUSTMENT FOR THE CAPM**
4 **MEASURED BY MORNINGSTAR APPLY TO REGULATED**
5 **UTILITIES?**

6 A. Yes. Morningstar calculated a measured adjustment specifically for
7 traditional, regulated utilities. In fact, the example calculation by
8 Morningstar used an electric utility to demonstrate the correct manner to
9 apply this adjustment.

10 **Q. TO YOUR KNOWLEDGE, HAVE ANY REGULATORY**
11 **COMMISSIONS ACCEPTED THIS SIZE ADJUSTMENT TO THE**
12 **CAPM IN RATE PROCEEDINGS WHEN DETERMINING THE**
13 **COST OF COMMON EQUITY?**

14 A. I know of at least one instance where a commission recognized the
15 adjustment to the CAPM proposed by Morningstar. The Minnesota Public
16 Utilities Commission has done so in an Interstate Power and Light
17 Company case. The commission observed:

18 The Administrative Law Judge takes comfort from the fact that
19 Ibbotson Associates [*now Morningstar*] is a widely-recognized
20 statistical reporting firm that has a national reputation. He considers
21 it to be in the same general category as Standard & Poor's or
22 Moody's. There is no indication that the report in question was
23 prepared for IPL, or the utility industry, to bolster arguments in rate
24 cases. Instead, it appears that the report in question is part of an
25 almanac-type yearbook that Ibbotson prepares without any particular

1 focus on the utility industry. The Administrative Law Judge
2 understands and shares the concerns of the Staff concerning the
3 methodology used, and thinks the issue is worthy of pursuit in some
4 other forum. But for purposes of this case, the Administrative Law
5 Judge accepts the principal conclusion of the study – that size of a
6 firm is a factor in determining risk and return.¹¹
7

8 **Q. PLEASE DESCRIBE THE RESULTS OF YOUR CAPM ANALYSIS.**

9 A. My two CAPM studies provide complementary results, although
10 they used different data. They serve as benchmarks for the DCF analysis
11 that I had developed previously. For SCANA, the estimated costs of
12 common stock are 11.99 percent and 12.82 percent from these two CAPM
13 analyses. Using these two CAPM methodologies resulted in estimated costs
14 of capital, on average, for the comparable electric utilities in a range from
15 12.19 percent to 13.07 percent. I show the results of my CAPM analyses in
16 Exhibit No. ____ (DAM-22 and DAM-23).

17 **Q. DID YOU SUMMARIZE THE MORE RELEVANT RESULTS**
18 **FROM YOUR DCF AND CAPM ANALYSES?**

19 A. Yes. I prepared a summary of the most relevant DCF and CAPM
20 results and illustrated these results in Exhibit No. ____ (DAM-24). For the
21 comparable electric utilities similar to SCE&G, the CAPM results range
22 between 12.19 percent and 13.07 percent, and the DCF results range
23 between 9.22 percent and 11.91 percent.

¹¹ *In the Matter of the Petition of Interstate Power and Light Company for Authority to Increase its Electric Rates in Minnesota*, Docket No. E-001/GR-03-767, p. 7.

1 **XVIII. RECOMMENDED ALLOWED RETURN**

2 **Q. WHAT RETURN ON COMMON EQUITY ARE YOU**
3 **RECOMMENDING FOR SCE&G IN THIS PROCEEDING?**

4 A. I am recommending an allowed return for SCE&G in the range of
5 11.75 percent range to 12.00 percent in this proceeding.

6 **Q. WHAT FACTORS DID YOU FIND ESPECIALLY SIGNIFICANT IN**
7 **REACHING A RECOMMENDED ALLOWED RETURN?**

8 A. Of course, I interpreted the DCF and CAPM results and the current
9 returns on common stock earned by comparable electric utilities. Also the
10 recent and forecasted rising interest rates are the background for setting an
11 allowed return that is sufficient to attract and maintain capital. I evaluated
12 the risk of SCE&G, which is similar to the comparable electric utilities in
13 many respects. However, SCE&G stands out from this group because of the
14 nuclear power plant investment. All of these factors went in to my
15 consideration and judgment in recommending an allowed return in this
16 proceeding.

17 **Q. WHY IS A NUCLEAR POWER PLANT IMPORTANT TO YOUR**
18 **JUDGMENT ABOUT AN ALLOWED RETURN IN THIS**
19 **PROCEEDING?**

20 A. Investors will take special note and have concern about the recovery
21 of costs as utilities propose adding nuclear units to their fleet of generating

1 units. Because nuclear power has not been a technology of choice in the
2 United States for decades, investors will view it as possessing special risks.
3 This will be the case until electric utilities have some success in recovering
4 their nuclear investments. This is the investor risk associated with the
5 recovery of any investment with a technology and construction risk. This
6 was one factor that indicated that the lower market based calculations from
7 the CAPM and DCF results were poor indicators of the appropriate allowed
8 return in this proceeding.

9 **Q. HOW DID THE RESULTS OF YOUR DCF AND CAPM**
10 **CALCULATIONS AFFECT YOUR RECOMMENDED ALLOWED**
11 **RETURN IN THIS PROCEEDING?**

12 A. For the comparable electric utilities similar to SCE&G, the results
13 from the CAPM range between 12.19 percent and 13.07 percent. The
14 CAPM is a relatively long-term view of the cost of capital. The highest of
15 these returns, in my judgment is higher than necessary to attract and
16 maintain capital. The average DCF estimate for the comparable companies
17 using securities analysts' forecasts were the most relevant for ratemaking in
18 current markets. These were 10.89 percent and 11.91 percent. The lowest
19 DCF return is insufficient in today's market given the current level of
20 common stock earnings in the industry and the projected rising inflation
21 and interest rates. An allowed return in the center of these calculated returns

1 is consistent with the level of common stock earnings in the industry and
2 market conditions. The range of 11.75 percent to 12.00 percent is
3 appropriate for setting an allowed return in the forthcoming months.

4 **Q. BASED ON YOUR RECOMMENDED RETURN ON COMMON**
5 **EQUITY, WHAT IS YOUR RECOMMENDED REQUIRED**
6 **RETURN ON TOTAL CAPITAL THAT IS APPROPRIATE FOR**
7 **THIS PROCEEDING?**

8 A. I have calculated the total cost of capital at the lower end of my
9 recommended return on common stock range, or 11.75 percent, to be 9.18
10 percent. The total cost of capital at the upper end of my recommended
11 return on common stock range, or 12.00 percent, would be 9.31 percent. I
12 have shown the recommended allowed total returns in Exhibit No. ____
13 (DAM-25).

14
15 **XIX. INTEREST COVERAGE RATIOS**

16 **Q. HOW DID YOU VERIFY THAT YOUR RECOMMENDED**
17 **ALLOWED RETURN WAS SUFFICIENT TO ATTRACT AND**
18 **MAINTAIN CAPITAL FOR SCE&G?**

19 A. To verify that my recommended allowed return is sufficient, I
20 compared the After-Tax Interest Coverage ratios for SCE&G at the low end
21 of my recommended allowed return range to the After-Tax Interest

1 Coverage of the companies comparable to SCE&G. Because the After-Tax
2 Interest Coverage ratio indicates the level of funds available to meet the
3 interest payment obligations of a company's debt component of its
4 permanent capital, this is a measure of the sufficiency of the return. The
5 higher the ratio, the more secure the interest payments.

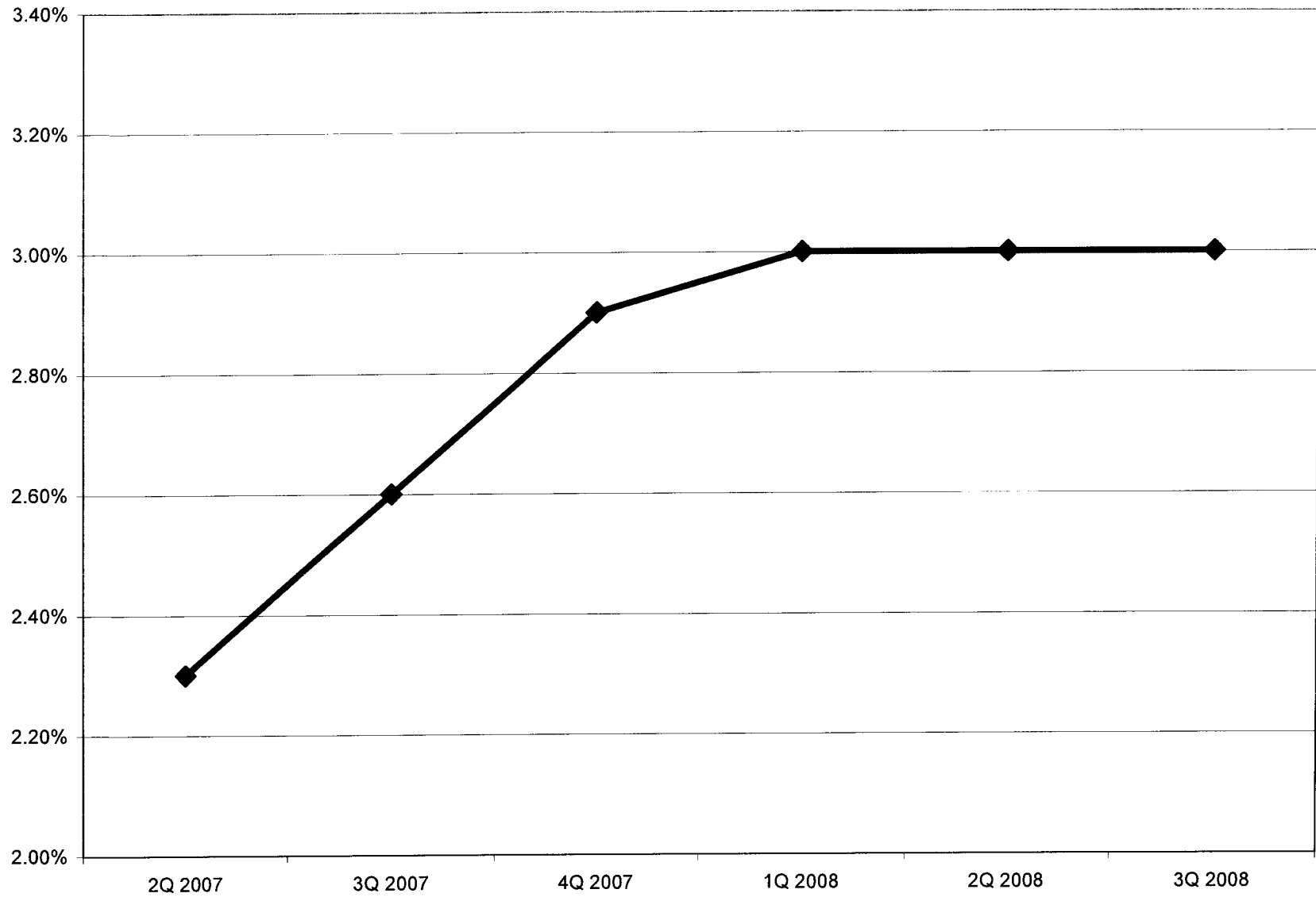
6 **Q. WHAT DID THE AFTER-TAX INTEREST COVERAGE RATIO AT**
7 **YOUR RECOMMENDED ALLOWED RETURN SHOW?**

8 A. I estimated the After-Tax Interest Coverage of SCE&G at the low
9 end of my recommended return, or 11.75 percent, which is at the upper end
10 of the After-Tax Interest Coverage of my comparable utilities. This
11 coverage is 3.33 times, and in today's market is adequate to attract and
12 maintain capital. I have illustrated the calculation of this After-Tax Interest
13 Coverage for SCE&G in Exhibit No. ____ (DAM-26).

14 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY AT THIS**
15 **TIME?**

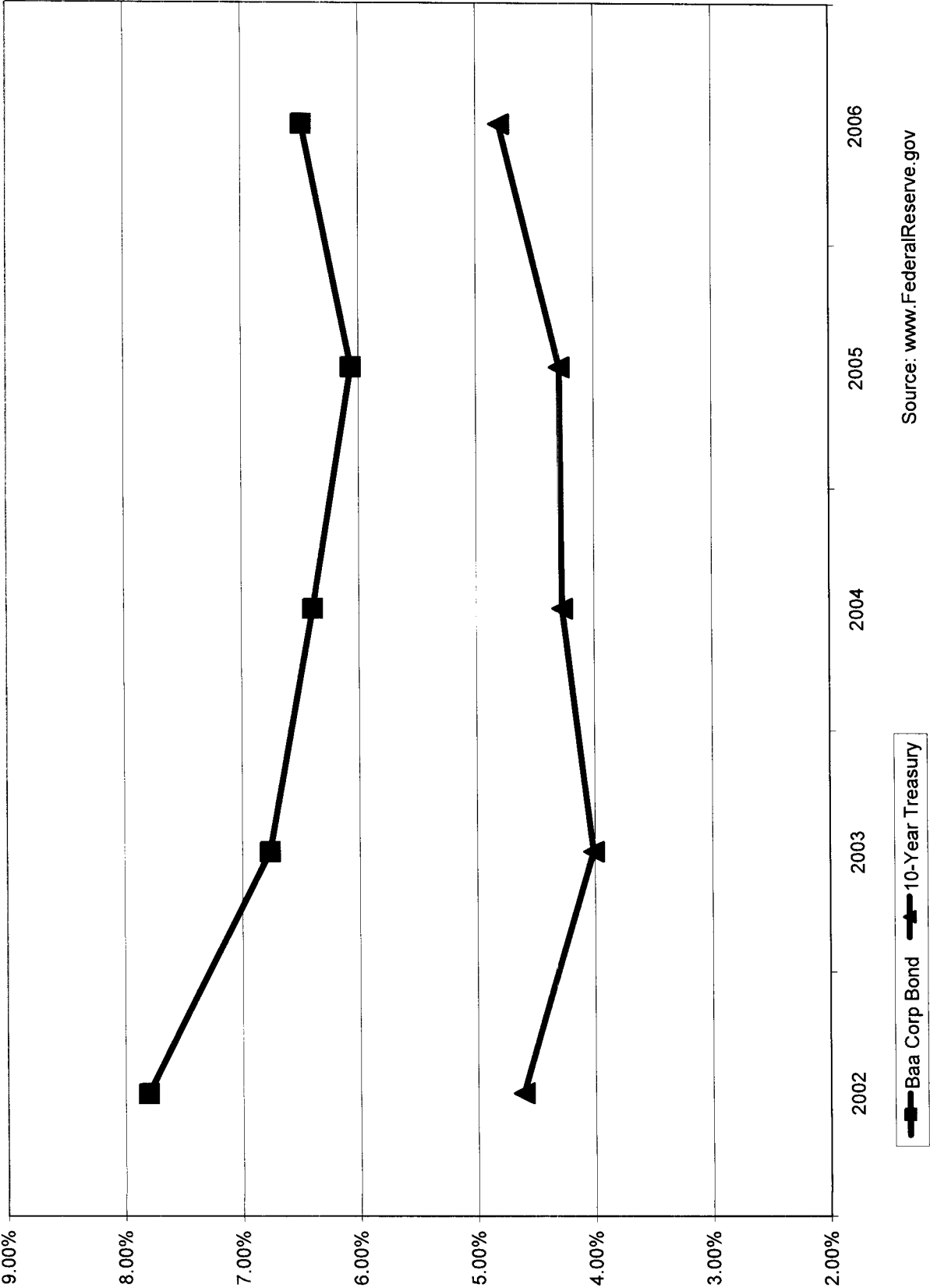
16 A. Yes, it does.

**South Carolina Electric & Gas Company
Real GDP Consensus Forecast**

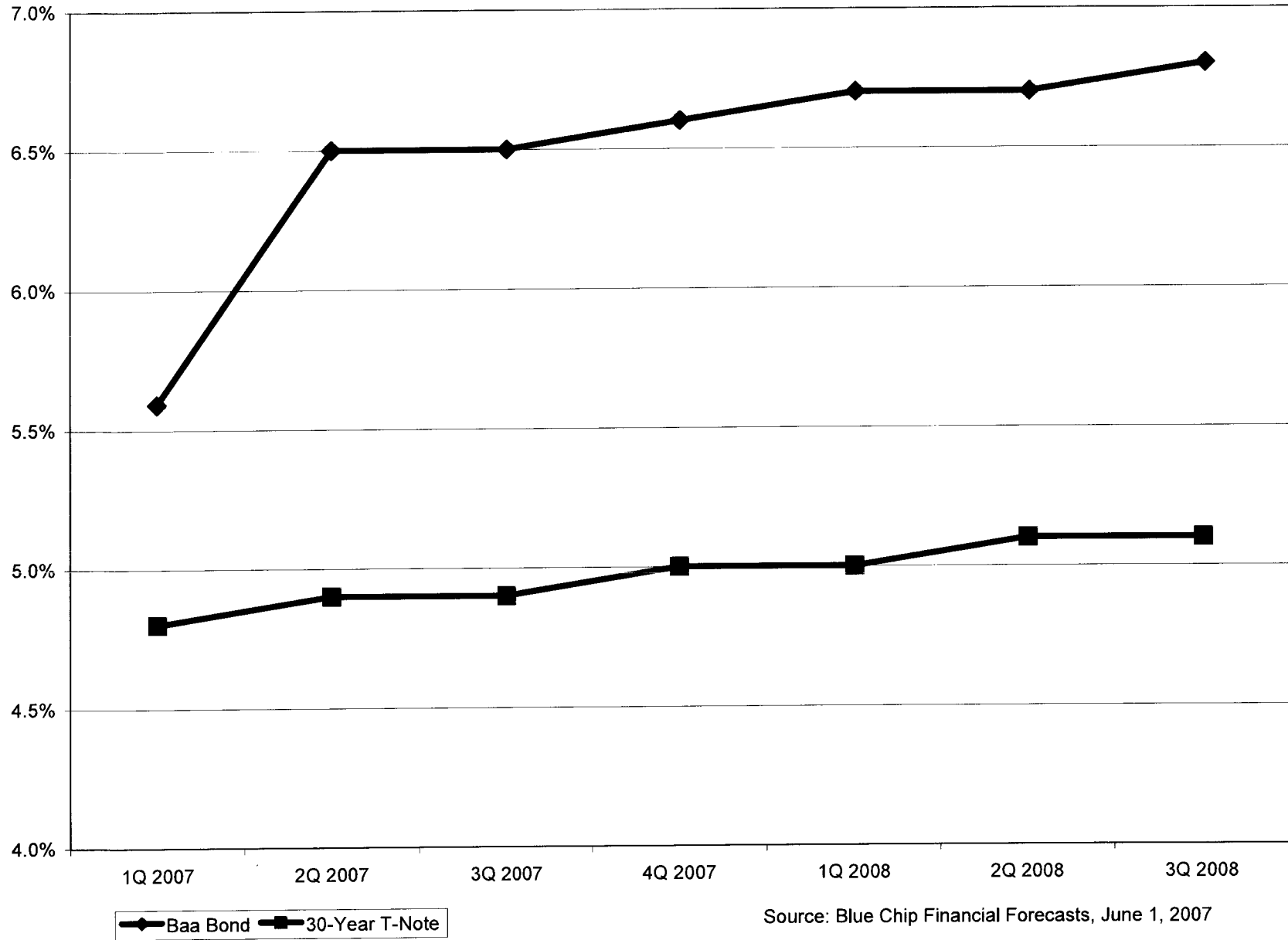


Source: Blue Chip Financial Forecasts, June 1, 2007

South Carolina Electric & Gas Company
History of Long-Term Bond Interest Rates



South Carolina Electric & Gas Company Bond Interest Rate Forecasts



South Carolina Gas & Electric Company

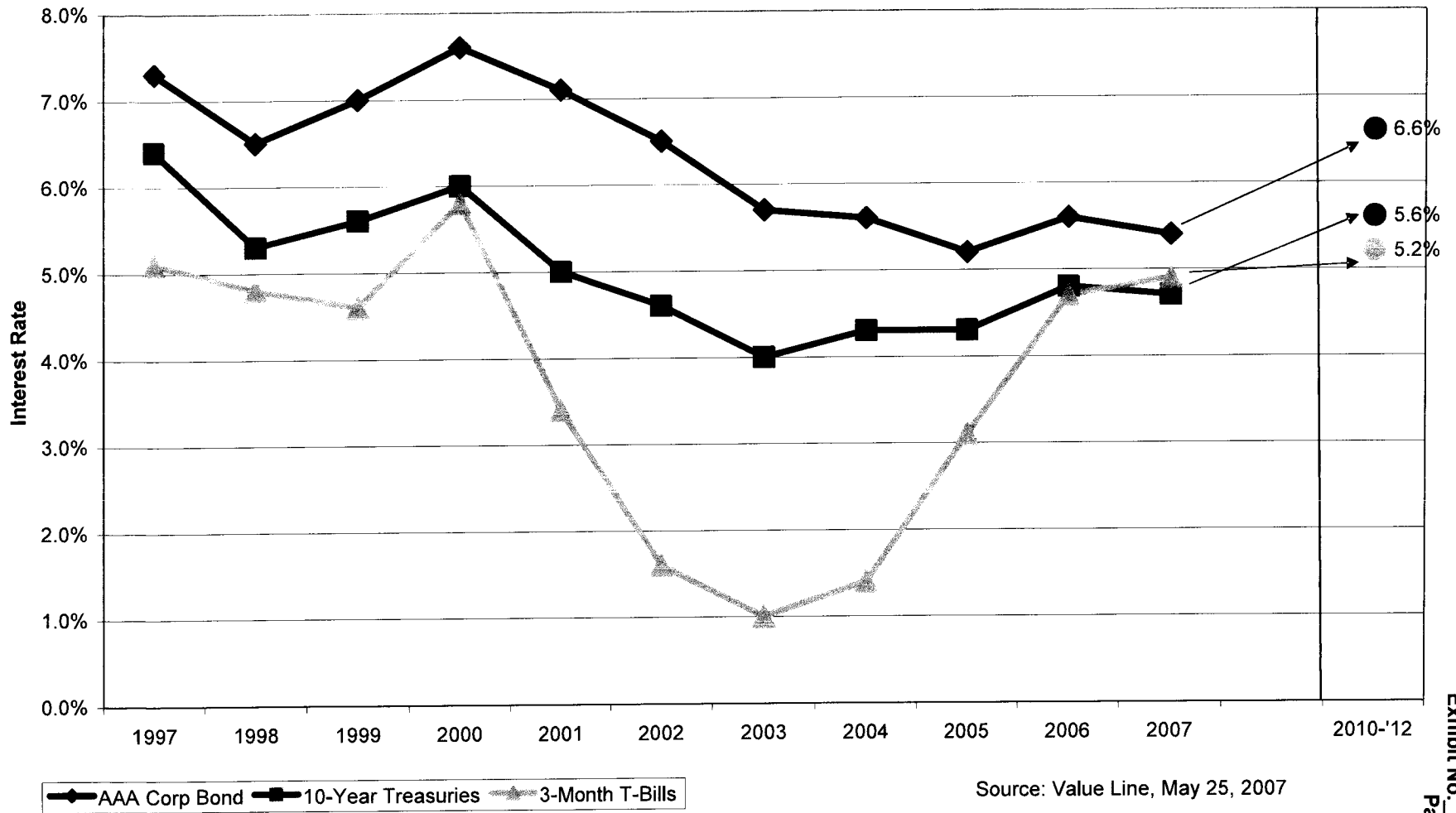
Bond Interest Rate Forecasts

Quarter	Baa Bond	30-Year T-Note
1Q 2007	5.6%	4.8%
2Q 2007	6.5%	4.9%
3Q 2007	6.5%	4.9%
4Q 2007	6.6%	5.0%
1Q 2008	6.7%	5.0%
2Q 2008	6.7%	5.1%
3Q 2008	6.8%	5.1%

Source: Blue Chip Financial Forecasts, June 1, 2007

**South Carolina Electric & Gas Company
Value Line Interest Rates and Forecasts
1997 - 2011**

Forecast



South Carolina Electric & Gas Company
Comparison of Value Line's Interest Rates

Year	AAA Corp Bond	10-Year Treasuries	3-Month T-Bills
1997	7.3%	6.4%	5.1%
1998	6.5%	5.3%	4.8%
1999	7.0%	5.6%	4.6%
2000	7.6%	6.0%	5.8%
2001	7.1%	5.0%	3.4%
2002	6.5%	4.6%	1.6%
2003	5.7%	4.0%	1.0%
2004	5.6%	4.3%	1.4%
2005	5.2%	4.3%	3.1%
2006	5.6%	4.8%	4.7%
2007	5.4%	4.7%	4.9%
2010-'12	6.6%	5.6%	5.2%

Source: Value Line Investment Survey

South Carolina Electric & Gas Company

Pro-forma Capital Structure

As of March 31, 2007

	Pro Forma Amount	Percent of Total
Long Term Debt	\$2,096,488,400	44.26%
Preferred Stock	\$114,558,800	2.42%
Common Equity	\$2,525,737,686	53.32%
Total	\$4,736,784,886	100.00%

Source :

South Carolina Electric & Gas Company Work Papers

Embedded Cost of Long Term Debt

As of March 31, 2007

	Cost of Money	Amount Outstanding	Annual Cost
First and Refunding Mortgage Bonds:			
9.00% DUE 2006	9.1173%	\$0	\$0
First Mortgage Bonds			
7.125% Due 2013	7.2474%	\$150,000,000	\$10,871,100
7.625% Due 2025	7.6749%	\$0	\$0
6.125 % Due 2009	6.1661%	\$100,000,000	\$6,166,100
7.5% Due 2005	7.5778%	\$0	\$0
6.7% Due 2011	6.7606%	\$150,000,000	\$10,140,900
6.625% Due 2032	6.7378%	\$300,000,000	\$20,213,400
5.80% Due 2033	5.8703%	\$200,000,000	\$11,740,600
5.30% Due 2033	5.5820%	\$300,000,000	\$16,746,000
5.25% Due 2018	5.3795%	\$250,000,000	\$13,448,750
5.250% Due 2035	5.5012%	\$100,000,000	\$5,501,200
6.250% Due 2036	5.9061%	\$125,000,000	\$7,382,625
Pollution Control Bonds			
5.70% Due 2024-Orangeburg	5.7576%	\$30,000,000	\$1,727,280
4.20% Due 2012-Industrial Rev.	4.3007%	\$4,365,000	\$187,726
5.20% Due 2027-Industrial Rev.	5.3924%	\$56,910,000	\$3,068,814
5.45% Due 2032-Industrial Rev.	5.6791%	\$29,150,000	\$1,655,458
Other Long-Term Debt			
Turbine Spare Parts		\$26,063,400	\$2,079,859
Stator Bar Parts		\$0	\$0
Net Amortization of Loss/Gain on Required Debt			\$1,934,455
Total		\$1,821,488,400	\$112,864,267
Weighted Average Cost			\$0
6.400% - Prospective First Mortgage Bond Issue	6.460%	\$275,000,000	\$17,777,650
Total		\$2,096,488,400	\$130,641,917
Embedded Cost of Long-Term Debt			6.23%

* - Forecast includes prospective First Mortgage Bond issue of \$275,000,000 in June 2008.

Source:

Answer No. 8 to ORS First Continuing Audit

South Carolina Electric & Gas Company

Embedded Cost of Preferred Stock

As of March 31, 2007

<u>Series</u>	<u>Cost of Money</u> (%)	<u>Amount Outstanding</u> (\$)	<u>Annual Cost</u> (\$)
5.00% series	5.1500	6,260,450	322,413
4.50% series	4.6325	252,050	11,676
4.60% series(A)	4.6434	393,900	18,290
5.125% series	5.1992	3,075,800	159,917
4.60% series(B)	4.6592	2,021,850	94,202
6.00% series	6.0428	2,554,750	154,378
6.52% series	6.5859	<u>100,000,000</u>	<u>6,585,900</u>
Total		114,558,800	7,346,776
Embedded Cost of Preferred Stock			6.41%

Source:
Answer No. 11 to ORS First Continuing Audit

South Carolina Electric & Gas Company

Comparable Electric Companies

Comparison of Value Line's Safety and Timeliness Rank

	Safety Rank	Timeliness Rank
SCANA	2	5
DPL, Inc.	3	3
Northeast Utilities	3	3
NSTAR	1	4
OGE Energy	2	4
Pepco Holdings	3	3
Pinnacle West	1	3
Wisconsin Energy	2	5
Comparable Companies' Average	2.1	3.6

Source: Value Line Investment Survey

South Carolina Electric & Gas Company

Comparable Electric Companies

Comparison of Standard and Poor's and Value Line Financial Ratings

Company	Value Line Financial Strength	S&P Rating	S&P Business Position
SCANA	A	A-	4
DPL, Inc.	B	BBB	6
Northeast Utilities	B+	BBB	4
NSTAR	A	A+	1
OGE Energy	A	BBB+	6
Pepco Holdings	B	BBB	5
Pinnacle West	A	BBB-	6
Wisconsin Energy	B++	BBB+	5
Comparable Companies' Median	B++	BBB+	5.0

Sources: Value Line Investment Survey
www.standardandpoors.com

South Carolina Electric & Gas Company

Comparable Electric Companies

Comparison of Returns on Common Equity

	2003	2004	2005	2006	2007E	Five Year Average
SCANA	12.1%	12.2%	11.8%	10.5%	11.0%	11.5%
DPL, Inc.	14.6%	20.7%	11.9%	27.0%	25.5%	19.9%
Northeast Utilities	6.9%	5.1%	5.1%	9.5%	8.5%	7.0%
NSTAR	13.7%	13.1%	12.8%	13.0%	13.5%	13.2%
OGE Energy	11.8%	12.3%	12.1%	14.1%	12.5%	12.6%
Pepco Holdings	7.7%	7.7%	7.7%	7.0%	8.5%	7.7%
Pinnacle West	8.1%	8.0%	6.5%	9.2%	8.5%	8.1%
Wisconsin Energy	11.4%	8.8%	11.3%	10.8%	10.5%	10.6%
Comparable Companies' Averages	10.6%	10.8%	9.6%	12.9%	12.5%	11.3%

Source: Value Line Investment Survey

South Carolina Electric & Gas Company

Comparable Electric Companies

Comparison of Dividends per Share

Company	2003	2004	2005	2006	2007E	Growth '03-'07
SCANA	1.38	1.46	1.56	1.68	1.76	6.60%
DPL, Inc.	0.94	0.96	0.96	1.00	1.04	2.40%
Northeast Utilities	0.58	0.63	0.68	0.73	0.78	7.66%
NSTAR	1.09	1.13	0.87	1.54	1.33	8.94%
OGE Energy	1.33	1.33	1.33	1.34	1.37	0.62%
Pepeco Holdings	1.00	1.00	1.00	1.04	1.08	1.96%
Pinnacle West	1.73	1.83	1.93	2.03	2.13	5.33%
Wisconsin Energy	0.80	0.83	0.88	0.92	1.00	5.61%
Comparable Companies' Averages	1.07	1.10	1.09	1.23	1.25	4.65%

Source: Value Line Investment Survey

South Carolina Electric & Gas Company

Comparable Electric Companies

Comparison of Dividend Payout Ratios

Company	2003	2004	2005	2006	2007E	Five Year Average
SCANA	55%	55%	56%	66%	65%	59.4%
DPL, Inc.	85%	53%	93%	66%	61%	71.6%
Northeast Utilities	48%	70%	72%	48%	55%	58.6%
NSTAR	62%	63%	63%	79%	63%	66.0%
OGE Energy	70%	73%	72%	53%	59%	65.4%
Pepco Holdings	75%	68%	69%	78%	66%	71.2%
Pinnacle West	68%	71%	85%	63%	71%	71.6%
Wisconsin Energy	35%	45%	34%	35%	37%	37.2%
Comparable Companies' Averages	63.3%	63.3%	69.7%	60.3%	58.9%	63.1%

Source: Value Line Investment Survey

South Carolina Electric & Gas Company

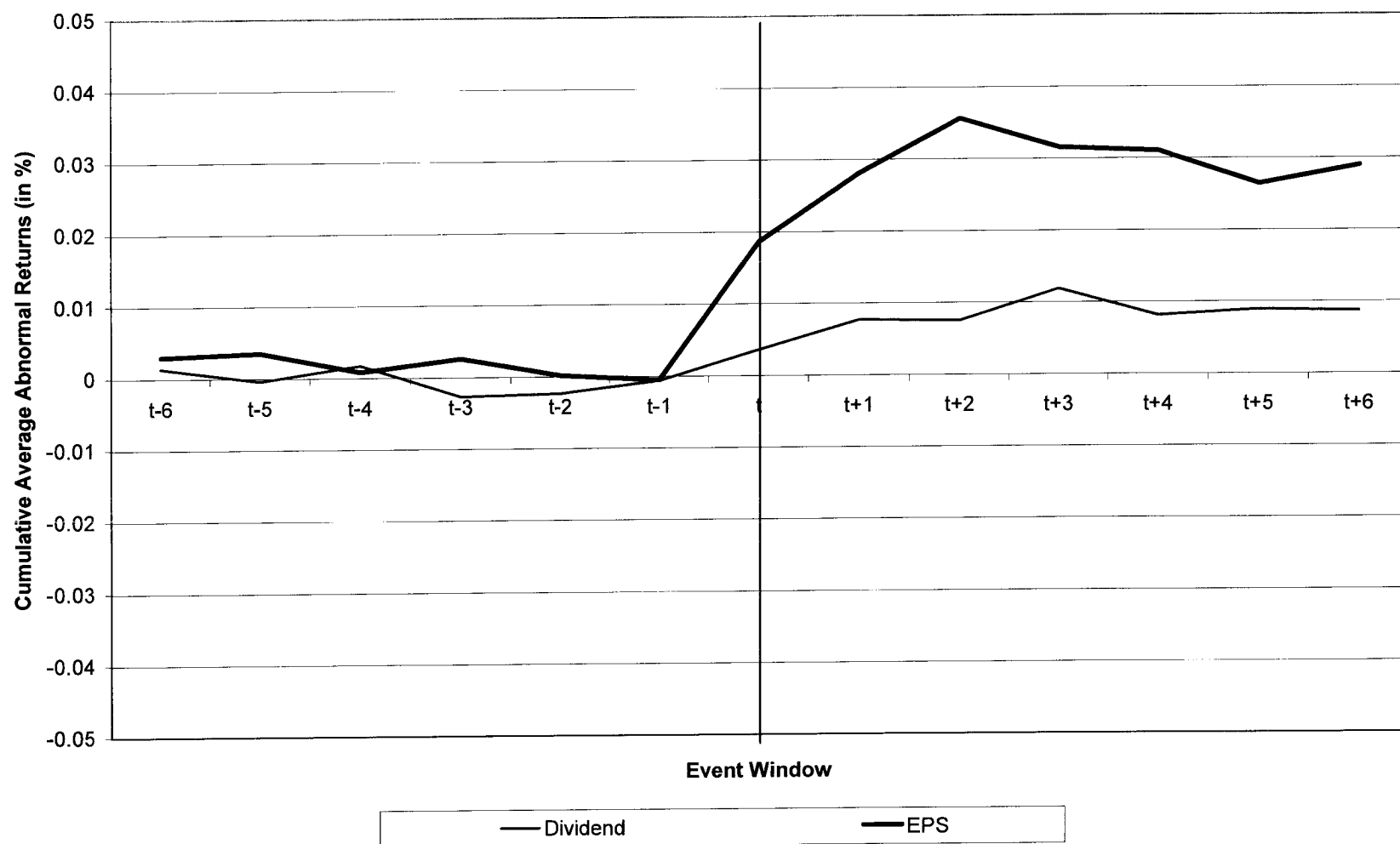
Comparable Electric Companies

Comparison of Average Annual P/E Ratio

Company	2002	2003	2004	2005	2006	Current
SCANA	12.2	13.0	13.6	14.4	15.4	15.8
DPL, Inc.	28.8	14.5	11.2	26.9	18.0	18.3
Northeast Utilities	16.1	13.4	20.8	19.8	14.2	21.5
NSTAR	12.7	12.7	13.8	15.5	15.9	17.2
OGE Energy	14.1	11.8	14.1	14.9	13.7	16.3
Pepco Holdings	11.3	13.4	13.6	14.9	17.8	16.5
Pinnacle West	14.4	14.0	15.8	19.2	13.7	17.7
Wisconsin Energy	10.5	12.4	17.5	14.5	16.0	19.1
Comparable Companies' Averages	15.4	13.2	15.3	18.0	15.6	18.1

Source: Value Line Investment Survey

**Stock Price Responses to Positive Dividend and EPS Announcements Greater than Expected
(Cumulative Average Abnormal Returns)**



South Carolina Electric & Gas Company

Comparable Electric Companies

Discounted Cash Flow Growth Rate Summary

	2002 TO 2011 Estimate			Value Line			Five Year Historical			Value Line			Projections		S & P EPS
	EPS	DPS	Book Value	Book Value	EPS	DPS	Book Value	DPS	Book Value	EPS	DPS	EPS	DPS	DPS	
SCANA	3.7%	5.0%	4.3%	7.0%	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	4.5%	5.0%	4.5%	5.0%	5.0%
DPL, Inc.	5.4%	2.8%	4.9%	-1.0%	0.5%	-1.0%	-1.0%	0.5%	-1.0%	8.0%	7.5%	9.0%	7.5%	9.0%	9.0%
Northeast Utilities	4.0%	7.3%	2.0%	0.0%	30.5%	3.0%	3.0%	30.5%	3.0%	7.5%	6.5%	11.0%	6.5%	11.0%	11.0%
NSTAR	6.6%	5.7%	5.4%	4.0%	1.0%	2.0%	2.0%	1.0%	2.0%	7.5%	8.0%	6.0%	8.0%	6.0%	6.0%
OGE Energy	7.1%	1.7%	6.0%	3.5%	0.0%	3.5%	3.5%	0.0%	3.5%	5.5%	2.5%	4.0%	2.5%	2.5%	4.0%
Pepco Holdings	3.7%	10.9%	2.0%	-1.0%	0.0%	0.5%	0.5%	0.0%	0.5%	8.0%	3.0%	7.0%	3.0%	3.0%	7.0%
Pinnacle West	1.4%	4.7%	2.9%	-5.0%	6.0%	4.0%	4.0%	6.0%	4.0%	3.5%	4.0%	4.0%	4.0%	4.0%	4.0%
Wisconsin Energy	5.6%	5.5%	6.4%	7.5%	-11.0%	5.0%	5.0%	-11.0%	5.0%	6.5%	6.5%	8.0%	6.5%	6.5%	8.0%
Comparable Companies' Averages	4.83%	5.51%	4.22%	1.14%	3.86%	2.43%	2.43%	3.86%	2.43%	6.64%	5.43%	7.00%	5.43%	5.43%	7.00%

Sources:
Value Line Investment Survey
Standard & Poor's Earnings Guide

South Carolina Electric & Gas Company

Comparable Electric Companies

Projected Growth Rate DCF Using 52-Week Share Prices

	Share Prices		2007 Dividend	52 Week Yields		EPS Estimates		Cost of Capital	
	Low	High		Low	High	Value Line	S&P	Low	High
SCANA	36.92	45.49	1.76	3.87%	4.77%	3.00%	5.00%	6.87%	9.77%
DPL, Inc.	26.11	32.72	1.04	3.18%	3.98%	8.00%	9.00%	11.18%	12.98%
Northeast Utilities	19.49	33.62	0.78	2.32%	4.00%	7.50%	11.00%	9.82%	15.00%
NSTAR	27.12	37.37	1.33	3.56%	4.90%	7.50%	6.00%	9.56%	12.40%
OGE Energy	30.42	41.30	1.37	3.32%	4.50%	5.50%	4.00%	7.32%	10.00%
Pepco Holdings	22.19	30.71	1.08	3.52%	4.87%	8.00%	7.00%	10.52%	12.87%
Pinnacle West	38.63	51.67	2.13	4.12%	5.51%	3.50%	4.00%	7.62%	9.51%
Wisconsin Energy	38.53	50.10	1.00	2.00%	2.60%	6.50%	8.00%	8.50%	10.60%
Comparable Companies' Averages	28.93	39.64	1.25	3.14%	4.34%	6.64%	7.00%	9.22%	11.91%

Sources:

Value Line Investment Survey
Yahoo! FINANCE
Standard & Poor's Earnings Guide

South Carolina Electric & Gas Company

Comparable Electric Companies

Projected Growth Rate DCF Using Current Share Prices

	Share Prices		Current Dividend	Current Yields		EPS Estimates		Cost of Capital	
	Low	High		Low	High	Value Line	S&P	Low	High
SCANA	43.20	43.83	1.76	4.02%	4.07%	3.00%	5.00%	7.02%	9.07%
DPL, Inc.	30.72	31.12	1.04	3.34%	3.39%	8.00%	9.00%	11.34%	12.39%
Northeast Utilities	31.80	32.31	0.78	2.41%	2.45%	7.50%	11.00%	9.91%	13.45%
NSTAR	35.93	36.38	1.33	3.66%	3.70%	7.50%	6.00%	9.66%	11.20%
OGE Energy	37.76	38.26	1.37	3.58%	3.63%	5.50%	4.00%	7.58%	9.13%
Pepco Holdings	29.75	30.26	1.08	3.57%	3.63%	8.00%	7.00%	10.57%	11.63%
Pinnacle West	48.60	48.48	2.13	4.39%	4.38%	3.50%	4.00%	7.89%	8.38%
Wisconsin Energy	48.78	49.30	1.00	2.03%	2.05%	6.50%	8.00%	8.53%	10.05%
Comparable Companies' Averages	37.62	38.02	1.25	3.28%	3.32%	6.64%	7.00%	9.35%	10.89%

Sources:
Value Line Investment Survey
Standard & Poor's Earnings Guide
Yahoo! FINANCE

South Carolina Electric & Gas Company

Comparable Electric Companies

Dividend Growth Rate DCF Using 52-Week Share Prices

	Share Prices		2007	52 Week Yields		2001-03	2010-12E	Growth	Cost of Capital	
	Low	High	Dividend	Low	High	DPS	DPS	Rate	Low	High
SCANA	36.92	45.49	1.76	3.87%	4.77%	1.29	2.00	4.96%	8.83%	9.73%
DPL, Inc.	26.11	32.72	1.04	3.18%	3.98%	0.94	1.20	2.75%	5.93%	6.73%
Northeast Utilities	19.49	33.62	0.78	2.32%	4.00%	0.52	0.98	7.30%	9.62%	11.30%
NSTAR	27.12	37.37	1.33	3.56%	4.90%	1.07	1.75	5.65%	9.21%	10.56%
OGE Energy	30.42	41.30	1.37	3.32%	4.50%	1.33	1.55	1.72%	5.03%	6.22%
Pepco Holdings	22.19	30.71	1.08	3.52%	4.87%	0.47	1.20	10.89%	14.41%	15.76%
Pinnacle West	38.63	51.67	2.13	4.12%	5.51%	1.63	2.47	4.73%	8.85%	10.24%
Wisconsin Energy	38.53	50.10	1.00	2.00%	2.60%	0.80	1.30	5.54%	7.54%	8.14%
Comparable Companies' Averages	28.93	39.64	1.25	3.14%	4.34%	0.97	1.49	5.51%	8.65%	9.85%

Sources:
Value Line Investment Survey
Yahoo! FINANCE

South Carolina Electric & Gas Company

Comparable Electric Companies

Dividend Growth Rate DCF Using Current Share Prices

	Share Prices		Current	Current Yields		2001-03	2010-12E	Growth	Cost of Capital	
	Low	High	Dividend	Low	High	DPS	DPS	Rate	Low	High
SCANA	43.20	43.83	1.76	4.02%	4.07%	1.29	2.00	4.96%	8.98%	9.04%
DPL, Inc.	30.72	31.12	1.04	3.34%	3.39%	0.94	1.20	2.75%	6.09%	6.14%
Northeast Utilities	31.80	32.31	0.78	2.41%	2.45%	0.52	0.98	7.30%	9.71%	9.75%
NSTAR	35.93	36.38	1.33	3.66%	3.70%	1.07	1.75	5.65%	9.31%	9.36%
OGE Energy	37.76	38.26	1.37	3.58%	3.63%	1.33	1.55	1.72%	5.30%	5.34%
Pepco Holdings	29.75	30.26	1.08	3.57%	3.63%	0.47	1.20	10.89%	14.46%	14.52%
Pinnacle West	48.60	48.48	2.13	4.39%	4.38%	1.63	2.47	4.73%	9.12%	9.11%
Wisconsin Energy	48.78	49.30	1.00	2.03%	2.05%	0.80	1.30	5.54%	7.57%	7.59%
Comparable Companies' Averages	37.62	38.02	1.25	3.28%	3.32%	0.97	1.49	5.51%	8.79%	8.83%

Sources:

Value Line Investment Survey

Yahoo! FINANCE

South Carolina Electric & Gas Company

Comparable Electric Companies

Earnings Growth Rate DCF Using 52-Week Share Prices

	Share Prices		2007	52 Week Yields		2001-03	2010-12E	Growth	Cost of Capital	
	Low	High	Dividend	Low	High	EPS	EPS	Rate	Low	High
SCANA	36.92	45.49	1.76	3.87%	4.77%	2.34	3.25	3.70%	7.57%	8.47%
DPL, Inc.	26.11	32.72	1.04	3.18%	3.98%	1.18	1.90	5.40%	8.58%	9.39%
Northeast Utilities	19.49	33.62	0.78	2.32%	4.00%	1.23	1.75	4.00%	6.32%	8.00%
NSTAR	27.12	37.37	1.33	3.56%	4.90%	1.69	3.00	6.56%	10.12%	11.46%
OGE Energy	30.42	41.30	1.37	3.32%	4.50%	1.48	2.75	7.10%	10.42%	11.60%
Pepco Holdings	22.19	30.71	1.08	3.52%	4.87%	1.77	2.45	3.70%	7.22%	8.57%
Pinnacle West	38.63	51.67	2.13	4.12%	5.51%	2.91	3.30	1.41%	5.53%	6.92%
Wisconsin Energy	38.53	50.10	1.00	2.00%	2.60%	2.14	3.50	5.62%	7.61%	8.21%
Comparable Companies' Averages	28.93	39.64	1.25	3.14%	4.34%	1.77	2.66	4.83%	7.97%	9.16%

Sources:

Value Line Investment Survey

Yahoo! FINANCE

South Carolina Electric & Gas Company

Comparable Electric Companies

Earnings Growth Rate DCF Using Current Share Prices

	Share Prices		Current	Current Yields		2001-03	2010-12E	Growth	Cost of Capital	
	Low	High	Dividend	Low	High	EPS	EPS	Rate	Low	High
SCANA	43.20	43.83	1.76	4.02%	4.07%	2.34	3.25	3.70%	7.72%	7.78%
DPL, Inc.	30.72	31.12	1.04	3.34%	3.39%	1.18	1.90	5.40%	8.74%	8.79%
Northeast Utilities	31.80	32.31	0.78	2.41%	2.45%	1.23	1.75	4.00%	6.41%	6.45%
NSTAR	35.93	36.38	1.33	3.66%	3.70%	1.69	3.00	6.56%	10.22%	10.26%
OGE Energy	37.76	38.26	1.37	3.58%	3.63%	1.48	2.75	7.10%	10.68%	10.73%
Pepco Holdings	29.75	30.26	1.08	3.57%	3.63%	1.77	2.45	3.70%	7.27%	7.33%
Pinnacle West	48.60	48.48	2.13	4.39%	4.38%	2.91	3.30	1.41%	5.80%	5.79%
Wisconsin Energy	48.78	49.30	1.00	2.03%	2.05%	2.14	3.50	5.62%	7.65%	7.67%
Comparable Companies' Averages	37.62	38.02	1.25	3.28%	3.32%	1.77	2.66	4.83%	8.11%	8.15%

Sources:

Value Line Investment Survey

Yahoo! FINANCE

South Carolina Electric & Gas Company

Comparable Electric Companies

Size Adjusted Capital Asset Pricing Model

	Risk Free Return	Beta	Equity Risk Premium	Adjusted Equity Risk Premium	Size Premium	Cost of Equity
SCANA	4.98%	0.85	7.10%	6.04%	0.97%	11.99%
DPL, Inc.	4.98%	0.95	7.10%	6.75%	0.97%	12.70%
Northeast Utilities	4.98%	0.90	7.10%	6.39%	0.97%	12.34%
NSTAR	4.98%	0.80	7.10%	5.68%	0.97%	11.63%
OGE Energy	4.98%	0.80	7.10%	5.68%	0.97%	11.63%
Pepco Holdings	4.98%	0.90	7.10%	6.39%	0.97%	12.34%
Pinnacle West	4.98%	1.00	7.10%	7.10%	0.97%	13.05%
Wisconsin Energy	4.98%	0.80	7.10%	5.68%	0.97%	11.63%
Comparable Companies' Average	4.98%	0.88	7.10%	6.24%	0.97%	12.19%

Sources :

Value Line Investment Survey
Ibbotson Associates 2007 SBBI Yearbook: Valuation Edition
Federal Reserve Statistical Release

South Carolina Electric & Gas Company

Comparable Electric Companies

Historical Capital Asset Pricing Model

	Market Total Returns	Long-Term Corporate Bonds Return	Risk Premium	Beta	Adjusted Risk Premium	Aaa Corporate Bonds Return	Cost of Equity
SCANA	14.85%	6.20%	8.65%	0.85	7.35%	5.47%	12.82%
DPL, Inc.	14.85%	6.20%	8.65%	0.95	8.22%	5.47%	13.69%
Northeast Utilities	14.85%	6.20%	8.65%	0.90	7.79%	5.47%	13.26%
NSTAR	14.85%	6.20%	8.65%	0.80	6.92%	5.47%	12.39%
OGE Energy	14.85%	6.20%	8.65%	0.80	6.92%	5.47%	12.39%
Pepco Holdings	14.85%	6.20%	8.65%	0.90	7.79%	5.47%	13.26%
Pinnacle West	14.85%	6.20%	8.65%	1.00	8.65%	5.47%	14.12%
Wisconsin Energy	14.85%	6.20%	8.65%	0.80	6.92%	5.47%	12.39%
Comparable Companies' Average	14.85%	6.20%	8.65%	0.88	7.60%	5.47%	13.07%

Sources :

Value Line Investment Survey
Ibbotson Associates 2007 SBI Yearbook: Valuation Edition
Federal Reserve Statistical Release

South Carolina Electric & Gas Company

Comparable Electric Companies

Summary of Financial Analysis

Method	South Carolina Electric & Gas		Comparable Electric Companies	
	Low	High	Low	High
Capital Asset Pricing Model	11.99%	12.82%	12.19%	13.07%
Earnings Growth DCF Analysis	7.57%	8.47%	7.97%	9.16%
Projected Growth DCF Analysis	6.87%	9.77%	9.22%	11.91%

Sources: Schedules DAM-16 through DAM-24

South Carolina Electric & Gas Company

Proposed Cost of Capital

As of March 31, 2007

	Percent of Total	Low	High	Weighted Cost of Capital Low	High
Long Term Debt	44.26%	6.23%	6.23%	2.76%	2.76%
Preferred Stock	2.42%	6.41%	6.41%	0.16%	0.16%
Common Equity	53.32%	11.75%	12.00%	6.27%	6.40%
Total Capital	100.00%			9.18%	9.31%

Source:

South Carolina Electric and Gas Company Work Papers

South Carolina Electric & Gas Company

Comparable Electric Companies

Comparison of After-Tax Times Interest Earned Ratios

South Carolina Electric & Gas Company	@11.75% ROE	3.33
	@12.00% ROE	3.38
DPL, Inc.		2.49
Northeast Utilities		1.90
NSTAR		2.58
OGE Energy		3.33
Pepco Holdings		2.25
Pinnacle West		2.50
Wisconsin Energy		2.74
Comparable Companies' Average		2.54

Source : Value Line Investment Survey